

Patent Claims

1. Implanted hearing aid or hearing device, with at least one permanent magnet (15) in the area of the middle ear as well as at least one coil (17), characterized in that at least one permanent magnet (15) is positioned on the promontory (13).
2. Hearing device as in claim 1, characterized in that at least one coil (17) is positioned in the area of the ossicle chain (3, 5, 7) or at the tympanic membrane (11).
3. Hearing device as in claim 1 or 2, characterized in that at least one coil is positioned behind the tympanic membrane (11).
4. Hearing device as in one of the claims 1 to 3, characterized in that the permanent magnet (15) is radially polarized.
5. Hearing device as in one of the claims 1 to 4, characterized in that the magnet is of a circular, oval, square or rectangular design.
6. Hearing device as in one of the claims 1 to 5, characterized in that the magnet is solidly attached to the promontory.
7. Hearing device as in one of the claims 1 to 5, characterized in that the magnet is attached to the promontory in removable fashion.

8. Hearing device as in one of the claims 1 to 7, characterized in that the coil is circular or oval in design.
9. Hearing device as in one of the claims 1 to 8, characterized in that the coil extends in a plane parallel, perpendicular or at any angle between 0 and 180° relative to the magnet.
10. Hearing device as in one of the claims 1 to 9, characterized in that the magnet is positioned on the promontory in adjustable fashion so as to permit post-implantation adjustment of the air gap between the coil and the magnet.
11. Method for auditory capacity enhancement by amplifying the natural movement of the vibrating ossicle tract, characterized in that the acoustic signals are converted into an electrical signal followed by the reversion in the inner or middle ear into mechanical oscillations and by an amplification by means of a coil positioned in the area of the tympanic membrane or of the ossicle tract, said coil being additionally activated by at least one permanent magnet positioned on the promontory.
12. Use of the hearing device per one of the claims 1 to 10 for implementing the method per claim 11.

Add
B3

099223-091001